

New Tachinidae (Diptera) ¹

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Recent studies of some miscellaneous diptera collections have brought to light a number of interesting and apparently undescribed species. Seven of the latter, including one from Korea and six from the United States, are characterized below. Except as noted, the types are retained in my collection.

Cylindromyia arator, n. sp.

General habitus similar to *C. armata* Aldrich but with only two marginal scutellar bristles (basal pair lacking) and differing widely in genital features from all other allied American forms.

Male.—Abdomen reddish yellow at sides basally with a shining black dorsal vitta extending to middle of second segment where it expands sharply to include posterior half of latter and all of the two following segments; incisures of intermediate segments and pronotum gray pollinose; parafrontal and parafacial brassy; cheek linear in profile; occiput strongly bulged, lightly gray pollinose on black background and sparsely pale-haired. Genital segments shining black above; forceps pale yellow, sclerotized and strikingly compressed on basal half, which is rather broad in profile and bears a fringe of fine black hairs on each outer posterior margin, thence glabrous and narrowed to tip; accessory process also sclerotized, plowshare-like in conformation and fully as prominent as forceps; penis stalk translucent yellow, straight, obliquely truncate at apex from which extends a minute copulatory process; fifth sternite retracted and inconspicuous. Length, 10 mm. Female not known.

Holotype: Chang Hyon, S. KOREA, 9-27-53 (G. Schaeffer), in the California Academy of Sciences Collection.

Metavoria latifrons, n. sp.

A small moderately shining gray pollinose species, which differs from the genotype, *M. orientalis*, most obviously in the

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wider front and having the inner orbits subparallel from vertex to cheeks. Other differences are listed below.

Male.—Front wide approximating one-half head width (measuring 0.48 of same at vertex), densely gray pollinose at sides, reddish frontalia obscured by pollen, widening to twice parafacial width at triangle; two large verticals and proclinate orbitals; ocellars long, slightly proclinate and widely divergent; frontals in a single row, lower one upturned below antennal base; parafacial subsilvery, narrowed downward, beset with black hairs from upper extremity to cheek groove; epistoma gently warped; clypeus moderately depressed; facia bare; vibrissae on oral margin; antenna but little shorter than face, basal segments red, second two-fifths as long as third, latter wholly black, broader than parafacial below; arista bare, black, shorter than antenna, thickened to distal fourth thence tapering to tip, basal segments short; cheek gray pollinose on red ground color, nearly one-third eye height, haustellum slender, three-fourths head height; palpus slender, reddish; eye bare; back of head gently convex, gray pollinose, sparsely pale pilose above and below.

Thorax and scutellum black, gray pollinose, mesonotal vittae narrow and rather poorly defined. Chaetotaxy: acrostichal 3, 3; dorsocentral 3, 3; intraalar 3; supraalar 3 (only middle one large); presutural 2; humeral 2-3; postalar 2; pteropleural 1 (small); sternopleural 3; scutellum with 2 lateral, 1 decussate apical, 1 smaller preapical besides 1 appressed and 1 or 2 irregular erect discal pairs. Legs subshiny black, short, femora moderately thickened; claws and pulvilli much shorter than last tarsal segment. Wing clear; first vein bare, second setulose about to middle of first posterior cell, which is closed at costa far before wing tip; last section of fifth vein subequal length of preceding; apical and hind cross veins in same plane and very oblique, latter reaching fourth vein one-half its length before subrectangular cubitus, which bears a long stump; costal spine minute; calypters white.

Abdomen shining black, broad basal margin of last three segments with thin whitish pollen which is sharply limited at

the sides leaving venter wholly shining; no discals on any segment, one median marginal pair on second and a marginal row on last two segments; sternites covered; genitalia small and retracted; united forceps short and beaklike, bowed in profile, reddish apically; accessory process a little heavier than forceps, tapering to a rounded or blunt tip.

Female.—As described for male, but the third antennal segment is narrower, barely twice length of second and pale or reddish on posterior basal margin; first posterior cell narrowly open; genitalia blackish, tubular and retractile.

Length, 6.5 mm.

Holotype male and *allotype* female, Big Bend Park, TEXAS, July 14, 1937 (C. E. Heard). *Paratype*: 1 male, same data as type.

Metavoria facialis, n. sp.

Female.—Essentially like the preceding species except as follows: Front at vertex 0.43 of head width; three pairs of large proclinate orbital bristles; parafacial hairs coarser becoming bristly on lower inner margin; third antennal segment about three times length of second, pale or reddish beyond arista; cheek one-third eye height; haustellum slender but short, barely exceeding length of palpus; third vein setulose far beyond small cross vein; hind cross vein less than its length from cubitulus; last section of fifth vein approximating length of preceding; pollen on abdomen rather sharply limited at sides, venter shining black. Length, 7.5 mm. Male unknown.

Holotype: Fruitland, UT., Aug. 24, 1948 (G. F. Knowlton).

Meleterus nuperus, n. sp.

Differs from the genotype, *M. montanus* Aldrich, in having the parafrontals and parafacials yellow to subgolden pollinose; third antennal segment entirely black; abdominal segments two and three with gray pollen extending thinly to hind margin on each, etc.

Male.—Vertex 0.37 of head width, front gradually widening forward into facial angle; verticals and proclinate orbitals two

pairs; ocellars slightly proclinate and divaricate; lowermost frontal upturned at level with apex of second antennal segment; parafacial with a median row of four or five infraclinate bristles intermixed with scattered black hairs descending almost to lower edge of eye; face well depressed, gray pollinose; facialia bare; vibrissae on oral margin; antennal segments one and two red, third segment about five times length of second; arista bare, proximal segments short, thickened on basal half or less; palpus yellow; proboscis short; cheek about two-fifths eye height; occiput clothed with pale hairs.

Thorax and scutellum black, gray pollinose, notal vittae fairly well defined, median pair narrow before suture and obsolete shortly behind. Chaetotaxy: acrostichal 3, 3; dorsocentral 3, 3; intraalar 3; supraalar 3 (middle one large); presutural 2; humeral 3; posthumeral 3; notopleural 2; sternopleural 3; pteropleural 1 (smaller than hindmost sternopleural); scutellum with 3 lateral (hindmost one weak), 1 strong decussate apical, 1 erect somewhat smaller preapical pair besides 4 or 5 irregularly spaced discal bristles; postnotal slope, propleuron and prosternum bare. Wing gray hyaline; hind cross vein retracted and joining fourth halfway from small cross vein to cubitulus; latter bearing a long stump; last section of fifth vein over half as long as preceding; first, third and fifth veins setulose; first posterior cell narrowly open far before wing tip; costal spine small; calypters white. Legs rather short, moderately bristled, mid tibia with three or more stout bristles on outer front side; claws and pulvilli subequal length of last tarsal segment.

Abdomen black, hind margin of segments two to four moderately shining; no discs on intermediate segments, second bearing a pair of median marginals, third with an incomplete marginal row; anal segment with a discal and a marginal row; hairs on upper surface depressed; hypopygium shining black, rather small and retracted. Female unknown.

Length, 7 mm.

Holotype: "Yonah Mt. GA., 8-20-35." *Paratype*: 1 male, same data as holotype.

Euptilopareia vicinalis, n. sp.

Differs from the genotype, *E. crucicola* (Coq.), chiefly as follows: third antennal segment (male) two and one-half times and (female) two times length of second; first abdominal segment without median marginals, fourth with a marginal and two discal rows, etc.

Male.—Front broad, at narrowest (before triangle) 0.40 of head width, sides gray pollinose becoming blackish near vertex; frontalia deep red, wider than parafrontal; one pair strong divaricate preverticals and two or three proclinate orbitals; verticals two large pairs; ocellars proclinate and divergent; two frontals beneath antennal base; proximal antennal segments red, third wholly black, rather wide and thick; arista thickened to apical fourth thence evenly tapered to a fine tip, second segment twice longer than thick; parafacial with a row of about six infraclinate bristles nearer inner margin and beset with fine hairs outside main row from upper extremity to cheek groove; facialia bearing three to five bristles next to vibrissae, latter on oral margin; epistoma somewhat warped but not prominent in profile; proboscis rather slender but much shorter than head height; palpus slender to tip, yellow; eye bare; cheek gray pollinose on pale background, about two-fifths eye height; occiput convex, cinereous pollinose and clothed with rather sparse short whitish hairs.

Thorax and scutellum subshining black, thinly gray pollinose, mesonotal vittae poorly defined. Chaetotaxy: acrostichal 3, 3; dorsocentral 3, 3; presutural 2; intraalar 3; supraalar 3; pteropleural vestigial; sternopleural 3; scutellum with 3 lateral (hindmost small); 1 long decussate apical, 1 preapical and 3 or more longish erect discal pairs; sides of postnotum beneath calypters setose, polished black. Legs black; claws and pulvilli exceeding length of last tarsal segment. Wing gray hyaline tinged with yellow at extreme base; third vein setose almost to small cross vein; hind cross vein retracted and oblique, joining fourth about midway between small cross vein and cubitulus, latter with a strong fold; last section of fifth vein a little shorter than preceding; first posterior cell open far before wing tip; costal

spine strong; calypters smallish and rounded, white tinged with yellow.

Abdomen shining black with gray pollen on about basal third of last three segments, hind margin of first segment broadly emarginate at middle; sternites covered; genitalia caudoventral, shining black, retracted in repose.

Female.—Front narrowest at vertex and 0.41 of head width; third vein setulose to or a trifle beyond small cross vein; fourth abdominal segment mostly shining black above, the basal discal row incomplete at sides; claws and pulvilli short.

Length, 7–8 mm.

Holotype male and *allotype* female, Sequoia Nat. Pk., CALIFORNIA, July 30, 1939, without collector's label. *Paratype*: 1 male, same data as type.

***Meledonus albiceps*, n. sp.**

The bright or silvery white head pollen readily distinguishes the present form from *M. latipennis* (genotype) and *M. lindensis*.

Male.—Front rather long and wide, vertex 0.38 of head width; frontals in a single row extending from about mid front to slightly below antennae, prevertical bristle weak, curved outward; ocellars and inner verticals rather long but not very stout; parafrontal and parafacial sparsely clothed with short black hairs; face deeply impressed, epistoma subbulbous, as wide as clypeus; vibrissae well above oral margin, with two or three small bristles next above on facial ridge; cheek about two-fifths eye height, bare except along narrow lower margin; antenna black, third segment rather stout, a little over twice length of second; arista black, bare, thickened on basal half, proximal segments short; haustellum slender, nearly equal to head height; palpus black, shorter than third antennal segment; eye bare; occiput somewhat swollen on sides below middle and clothed with a sparse vestiture of pale pile below the neck and coarser black hairs above.

Thorax and scutellum gray pollinose on black background, notal vittae not well defined; acrostichal 1, 1; dorsocentral 3, 3;

intraalar 3; supraalar 3; presutural 1 (outer); pteropleural vestigial; sternopleural 2, 1; scutellum with 2 lateral, 1 weak decussate apical and 1 reclinate discal pair behind middle besides scattered suberect discal hairs. Legs black, rather short but not very stout; mid tibia with two anterodorsal bristles; claws and pulvilli nearly as long as last tarsal segment. Wing gray hyaline; first posterior cell open shortly before wing tip; hind cross vein about two-thirds its length from cubitulus; third vein with two small setae near base; costal spine small; calypter opaque white.

Abdomen black, long ovate, segments two to four gray pollinose with hind margin of each moderately shiny; hairs on upper surface depressed; one pair of median marginals on proximal segments and a marginal row on last two besides a submarginal row on anal segment; hypopygium caudoventral, retracted; sternites exposed. Female unknown.

Length, 7 mm.

Holotype: "Trinity Co. CAL., Eagle Creek, 6-1-41."

***Eudexia dreisbachi*, n. sp.**

Male.—Front at vertex slightly wider than ocellar triangle and before latter narrowed to 0.13 of head width; parafrontal plumbeous, bearing a sparse vestiture of black hairs; frontalia red, broad on anterior half but strongly narrowed toward vertex; frontal bristles in a single row extending from narrowest part of front to near antennal base; ocellar bristles long, proclinate, verticals much weaker, outer one barely differentiated; parafacial gray pollinose on reddish background, bare and distinctly wider than clypeus; facial carina rounded on crest, widened and flattened below into epistomal plane; vibrissae well above oral margin, epistoma moderately prominent; antenna yellow, first segment nearly flush, second widened apically and well over one-half length of third, which is somewhat darker and narrowed at tip; arista yellow, rather evenly tapered from near moderately thickened base and plumose to tip, basal segments short; cheek subequal to eye height, with a fringe of black hairs on lower edge, broad red groove above thinly gray pollinose;

haustellum rather slender but obviously shorter than head height; palpus yellow, long and subcylindric, beset with longish black hairs on apical half; eye bare; back of head flattened, gray pollinose sparsely clothed with yellowish hairs which are replaced with coarser black ones near upper margin.

Thorax blackish dorsally with humerus, notopleuron, posterior callus and entire scutellum reddish yellow in ground color, pleural region also predominantly pale reddish; mesonotum dusted with gray pollen which shows five narrow dark vittae before the suture and four behind. Chaetotaxy: dorsocentral 3, 4; acrostichal 2, 3; humeral 5-7; posthumeral 2; presutural 1 (outer); intraalar 3; supraalar 4; postalar 2; pteropleural 2-3; sternopleural 2, 1; scutellum normally with 4 lateral and 3 or 4 irregularly spaced reclinate discal pairs, apicals absent or hair-like. Legs long and slender, more or less reddish to tarsi, latter black; claws and pulvilli pallid, greatly elongated. Wing hyaline with a light yellowish tint which is more apparent along the main veins and near base; first posterior cell open well before wing tip; cubitulus rounded V-like, near hind margin; third vein with three to five hairs near base; hind cross vein joining fourth much nearer cubitulus than small cross vein; costal spine vestigial; epaulet red, subepaulet yellowish; postnotal slope, prosternum and propleuron bare; postscutellum normally developed, brownish, lightly gray pollinose.

Abdomen wider than thorax, but rather sharply narrowed to tip, pale translucent yellow with a narrow black median vitta extending from base to infuscated tip; entirely devoid of pollen but the surface at most feebly shiny; first segment without median marginal bristles, second with two stout pairs besides three or more pairs of irregular discals spaced along the area of median vitta; third segment bearing a complete marginal and discal row with latter placed shortly in front of hind margin and two or three pairs of discals on anterior half along median vitta; anal segment irregularly bristled on entire upper surface beyond narrow basal margin; genital segments black-haired, most reddish in ground color; forceps black, divided beyond middle into acute-tipped, non-divergent prongs; accessory proc-

ess shining black, broad or platelike with outer surface convex and setiferously punctate; penis flattened and ribbonlike, hinged near middle and terminating in a simple tip; fifth sternite with a V-shaped median excision, lobes blackish, bearing an ordinary vestiture of black hairs, preceding sternites covered.

Female.—Vertex 0.28 of head width; two strong proclinate orbitals but outer verticals vestigial as in male; frontalia much wider than parafrontal and more noticeably striated; palpus stouter and more thickened apically; abdomen not so extensively bristled as described above, genitalia retracted.

Length, 12–17 mm.

Holotype male, Tzintzuntzan, Michoacan, MEX., Aug. 8, 1954 (R. E. Ryckman, D. Spencer, C. P. Christianson) and *allotype* female, Zapatlonego, Mex., Aug. 20, 1954, 5500 ft. (R. R. Dreisbach) in the U. S. National Museum. *Paratypes* all from Mexico: 3 males, same data as allotype; 3 females, 5 mi. E. C. del Maiz, Aug. 23–25, 1954, 4700 ft., 1 female, Tepatitlan, Aug. 20, 1954, 6200 ft. and 1 female, Lagos de Moreno, Aug. 12, 1954, 6300 ft., all collected by R. R. Dreisbach. In the Snow Collection, Kansas University Mex. Expedition: 2 males and 3 females, 5 mi. E. Ciudad del Maiz, S.L.P., 4700 ft., Aug. 22, 1954; 1 female, 4 mi. S. Taxco, Guerrero, Aug. 8, 1954, 4900 ft.; 1 male, 17 mi. W. Xilitla, S.L.P., Jul. 22, 1954, 4700 ft.; 1 male, Puente Grande Jalisco, Jul. 20, 1954, 5000 ft.; 4 males and 5 females, Morelia, Mich., Sept. 9, 1938 (L. J. Lipvosky).

A Recently Introduced Species of Collembolan

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In 1930 Stach worked upon a small amount of material collected by Dr. F. Haas between 1914 and 1919 in northern and eastern Spain. Among the species described in this work was the striking *Entomobrya unostrigata*. This species was characterized by its minute anteapical mucronal tooth. Bonet, in his key to the genus *Entomobrya*, erroneously places the species among the forms having a large anteapical tooth. Stach does